

DERWENT-ACC-NO: 1993-299299

DERWENT-WEEK: 200035

COPYRIGHT 2008 DERWENT INFORMATION LTD

TITLE: Thin biaxially oriented polyethylene naphthalate film  
for magnetic recording - with specified Young's modulus  
in longitudinal and transverse directions, shrink ratio  
and expansion ratios

PATENT-ASSIGNEE: TEIJIN LTD[TEIJ]

PRIORITY-DATA: 1992JP-0021169 (February 6, 1992)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>JP 05212787</u> A	August 24, 1993	N/A	007	B29C 055/12
JP 3056575 B2	June 26, 2000	N/A	006	B29C 055/12

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP 05212787A	N/A	1992JP-0021169	February 6, 1992
JP 3056575B2	N/A	1992JP-0021169	February 6, 1992
JP 3056575B2	Previous Publ.	JP 5212787	N/A

INT-CL (IPC): B29C055/12, B29K067:00 , B29L007:00 , C08J005/18 ,  
C08L067:02

ABSTRACTED-PUB-NO: JP 05212787A

## BASIC-ABSTRACT:

The film has a Young's modulus of elasticity in the longitudinal direction (EM) of 550 kg/sq.mm or higher, and in the transverse direction (ET) of 700 kg/sq.mm or higher, a Young's modulus ratio (ET/EM) of 1.1-2.0, a shrink ratio in the longitudinal direction of 0.02% or lower, measured when a sample is kept at 70 deg.C, a relative humidity of 65%, and in its unloaded condition for one hour, and a temp. expansion ratio ( $\alpha_t$ ) in the longitudinal direction of  $10^{-5}/\text{deg.C}$  and a humidity expansion ratio ( $\alpha_h$ ) in the longitudinal direction of  $15 \times 10^{-6}\%$  RH.

USE/ADVANTAGE - For base films of magnetic recording films, etc. The film may be thin without skewing, track-slipping, reduction of electromagnetic power, deformation and damages of tapes, etc., and is suitable for reproduction or recording for a long time. The thickness of a film is below 7 micron meter.

In an example, pellets of polyethylene-2,6-naphthalate with an intrinsic viscosity of 0.15 wt.%, contg. 15 wt.% of spherical fine particles of silica with an average particle size of 0.3 microns are melt-extrusion moulded, quickly-cooled, bi-axially drawn, and heat set.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: THIN BIAxIAL ORIENT POLYETHYLENE NAPHTHALATE FILM  
MAGNETIC RECORD

SPECIFIED YOUNG MODULUS LONGITUDE TRANSVERSE DIRECTION SHRINK  
RATIO

EXPAND RATIO

DERWENT-CLASS: A23 A32 A85 L03

CPI-CODES: A05-E05; A12-E08A1; L03-B05L1;

#### ENHANCED-POLYMER-INDEXING:

##### Polymer Index [1.1]

017 ; D01 D11 D10 D20 D18 D50 D63 D32 D93 F41 E22 E00 ; P0839\*R  
F41 ; S9999 S1285\*R ; H0293

##### Polymer Index [1.2]

017 ; B9999 B4080 B3930 B3838 B3747 ; B9999 B5550 B5505 ; B9999  
B5538 B5505 ; Q9999 Q8877\*R Q8855 ; B9999 B5243\*R B4740 ; B9999  
B5163 B5152 B4740 ; ND09 ; ND01

#### POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0016 0226 0231 1288 1291 2513 2547 2601 2628 2654 2666 2742 3089

Multipunch Codes: 017 02& 04- 143 144 151 155 163 331 435 494 50& 541 547 551  
560 566 575 596 604 607 623 627 694

#### SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1993-132997